

I/We claim:

1. A communication system, comprising:
a spectrophotometer having a network communication interface for communicating with a network, wherein said spectrophotometer operates in at least one mode; and
a remote processor for communicating information directly with said spectrophotometer via said network.
2. The system of claim 1, wherein said information comprises diagnostic information received by said remote processor directly from said spectrophotometer via said network for determining a calibration status of said spectrophotometer.
3. The system of claim 2, wherein if said calibration status of said spectrophotometer is “not calibrated,” the remote processor transmits data to the spectrophotometer for calibrating or correcting the spectrophotometer.
4. The system of claim 2, wherein said remote processor allows a remote user to operate a color measurement/analysis software for analyzing the diagnostic information.
5. The system of claim 4, wherein said color measurement/analysis software resides with said remote processor.
6. The system of claim 4, wherein said color measurement/analysis software resides with said spectrophotometer.
7. The system of claim 2, wherein the spectrophotometer includes a processor for communicating directly with said remote processor via said network communication interface.

8. The system of claim 4, further including:
a local computing device for communicating with the spectrophotometer via a local communication interface to allow local access of said spectrophotometer.
9. The system of claim 8, wherein said color measurement/analysis software resides with said local computing device.
10. The system of claim 1, wherein if said at least one mode is a traditional mode of operation, then said spectrophotometer allows local access of a color measurement/analysis software at the spectrophotometer for analyzing the diagnostic information.
11. The system of claim 1, wherein said network communication interface is an Ethernet interface.
12. The system of claim 1, wherein said information communicated directly to said spectrophotometer by said remote processor allows said remote processor to control said spectrophotometer or to configure one or more parameters.
13. The system of claim 12, wherein said one or more parameters comprise at least one of calibration interval, corrective parameters for subsequent measurements, illuminant setting, performance reporting interval, reporting of instrument history, database where data is stored, the manner in which data will be organized, and user information.
14. The system of claim 2, wherein said diagnostic information comprises at least one of standard-tile reflectance values, calibration values, and lamp brightness levels.
15. A method for exchanging information between a spectrophotometer and a remote processor, comprising:
providing a spectrophotometer with a network communication interface for communicating with a network, wherein said spectrophotometer operates in at least one mode; and

providing a remote processor for communicating information directly with said spectrophotometer via said network.

16. The method of claim 15, further comprising:
receiving diagnostic information by said remote processor directly from said spectrophotometer via said network; and
determining a calibration status of said spectrophotometer and directing adjustment of the spectrophotometer..
17. The method of claim 16, further comprising:
transmitting data to the spectrophotometer directly by said remote processor for calibrating the spectrophotometer if said calibration status of said spectrophotometer is “not calibrated,”.
18. The method of claim 16, further comprising:
allowing a remote user to operate a color measurement/analysis software for analyzing the diagnostic information.
19. The method of claim 18, wherein said color measurement/analysis software resides with said remote processor.
20. The method of claim 18, wherein said color measurement/analysis software resides with said spectrophotometer.
21. The method of claim 18, further comprising:
providing a local computing device for communicating with the spectrophotometer via a local communication interface to allow local access of said spectrophotometer.
22. The method of claim 15, further comprising:
forwarding information directly to said spectrophotometer by said remote processor to control said spectrophotometer or to configure one or more parameters.

23. A color measuring apparatus operating in at least one mode, comprising:
a spectrophotometer;
a processor; and
a network communication interface for allowing said color-measuring apparatus to communicate directly with a remote processor.
24. A spectrophotometer operating in at least one mode, comprising
spectrophotometer electronics;
a processor; and
a network communication interface for allowing said spectrophotometer to communicate information directly with a remote processor.
25. The spectrophotometer of claim 24, wherein said information comprises diagnostic information sent directly by said spectrophotometer to said remote processor via said network for determining a calibration status of said spectrophotometer.
26. The spectrophotometer of claim 25, wherein if said calibration status of said spectrophotometer is “not calibrated,” then the spectrophotometer receives data from said remote processor for calibrating the spectrophotometer.
27. The spectrophotometer of claim 25, wherein said remote processor allows a remote user to operate a color measurement/analysis software for analyzing the diagnostic information.
28. The spectrophotometer of claim 27, wherein said color measurement/analysis software resides with said remote processor.
29. The spectrophotometer of claim 28, wherein said color measurement/analysis software resides with said spectrophotometer.

30. The spectrophotometer of claim 24, further including:
a local communication interface for communicating with a local computing device to allow local access of said spectrophotometer.
31. The spectrophotometer of claim of claim 30, wherein said color measurement/analysis software resides with said local computing device.
32. The spectrophotometer of claim 24, wherein if said at least one mode is a traditional mode of operation, then said spectrophotometer allows local access of a color measurement/analysis software at the spectrophotometer for analyzing the diagnostic information.
33. The spectrophotometer of claim 24, wherein said network communication interface is an Ethernet interface.
34. The spectrophotometer of claim 24, wherein said information communicated directly to said spectrophotometer by said remote processor allows said remote processor to control said spectrophotometer or to configure one or more parameters.
35. The spectrophotometer of claim of claim 34, wherein said one or more parameters comprise at least one of calibration interval, illuminant setting, performance reporting interval, reporting of instrument history, database where data is stored, manner data will be organized, and user information.
36. The spectrophotometer of claim of claim 25, wherein said diagnostic information comprises at least one of standard-tile reflectance values, calibration values, and lamp brightness levels.
37. A method of operating a spectrophotometer, comprising
providing a network communication interface for allowing said spectrophotometer to communicate information directly with a remote processor; and
forwarding and receiving information directly with said remote processor.

38. The method of claim 37, wherein said information comprises diagnostic information sent directly by said spectrophotometer to said remote processor via said network for determining a calibration status of said spectrophotometer.

39. The method of claim 38, wherein if said calibration status of said spectrophotometer is "not calibrated," then the spectrophotometer receives data from said remote processor for calibrating the spectrophotometer.

40. The method of claim 38, wherein said remote processor allows a remote user to operate a color measurement/analysis software for analyzing the diagnostic information.

41. The method of claim 37, further including:
communicating with a local computing device via a local communication interface to allow local access of said spectrophotometer.

42. The method of claim 37, wherein if said at least one mode is a traditional mode of operation, then said spectrophotometer allows local access of a color measurement/analysis software at the spectrophotometer for analyzing the diagnostic information.

43. The method of claim 37, wherein said network communication interface is an Ethernet interface.

44. A remote server, comprising
a processor; and
a network communication interface for allowing said remote server to communicate information directly with a remote spectrophotometer via a network.

45. The remote server of claim 44, wherein said information comprises diagnostic information received directly by said remote processor via said network from said spectrophotometer for determining a calibration status of said spectrophotometer.

46. The remote server of claim 45, wherein if said calibration status of said spectrophotometer is “not calibrated,” then said remote processor sends data directly to the spectrophotometer for calibrating the spectrophotometer.

47. The remote server of claim 45, wherein said remote processor allows a remote user to operate a color measurement/analysis software for analyzing the diagnostic information.

48. The remote server of claim 47, wherein said color measurement/analysis software resides with said remote processor.